

20040531.ba v03_n654.bam.20040531

>From ???@??? Tue Jun 1 00:00:44 2004 +0000
Message-Id: <200406010500.i5150GM2024388@sco.theporch.com>
Date: Mon, 31 May 2004 23:59:49 CDT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3654

BOATANCHORS Digest 3654

Topics covered in this issue include:

- 1) Classic animated tubes
by "David M. Upton" <david@wb1cmg.mv.com>
- 2) RCA AVR-1 Receiver
by David Stinson <arc5@ix.netcom.com>
- 3) RE: Book Wanted
by "Orrin Bentz" <minmar@2z.net>
- 4) Mounting Plate Available
by David Stinson <arc5@ix.netcom.com>
- 5) FPM-200 Transceiver
by "Gary H. Harmon, Jr." <gharmon@idworld.net>
- 6) RCH Manual Reprint Available.
by WA5CAB@cs.com
- 7) Fw: CLASSIC RCVR. SURVEY RESULTS
by "Orrin Bentz" <minmar@2z.net>
- 8) E. H. Scott RCH or SLR-F?
by "Al Parker" <anchor@ec.rr.com>
- 9) Re: E. H. Scott RCH or SLR-F?
by "Nick England" <nick@3rdtech.com>
- 10) Re: E. H. Scott RCH or SLR-F?
by "Arden Allen" <gumbear@pacbell.net>
- 11) Re: E. H. Scott RCH or SLR-F?
by "Al Parker" <anchor@ec.rr.com>
- 12) Re BC-375
by philip <dgnova@erols.com>
- 13) Re: Re BC-375
by WA5CAB@cs.com
- 14) Re: Re BC-375
by "Arden Allen" <gumbear@pacbell.net>
- 15) Re: BC-375
by "k4pf@juno.com" <k4pf@juno.com>
- 16) Screen modulated BC-696 (ARC-5) transmitter
by Charles <charlesmorris@direcway.com>
- 17) Re: SX-100 update
by "David L. Thompson" <thompson@mindspring.com>
- 18) Re: Screen modulated BC-696 (ARC-5) transmitter

by W7QH0@aol.com
19) Re: Re BC-375
by "Ed Zeranski" <ezeran@concentric.net>
20) Re: Screen modulated BC-696 (ARC-5) transmitter
by WA5CAB@cs.com

Message-ID: <40B806DC.6040608@wb1cmg.mv.com>
Date: Fri, 28 May 2004 23:43:24 -0400
From: "David M. Upton" <david@wb1cmg.mv.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Classic animated tubes
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

For those afflicted with harmonics or spurs of the child(ren) or granchild(ren) variety, I did notice Cartoon Network has some promos featuring classic outlines of tubes zooming in from the left. Quite an assortment with some top caps and 833-like types. They are using the art as a metaphor for projection lamps and, by extension, their movies. But Hey, you are going to be watching during the holiday weekend anyway and now you'll have something to look forward to besides the endless commercials.

David, WB1CMG

Message-ID: <40B812BF.6030506@ix.netcom.com>
Date: Fri, 28 May 2004 23:34:07 -0500
From: David Stinson <arc5@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RCA AVR-1 Receiver
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

Someone wrote me a couple of weeks ago about the RCA AVR-1 receiver. I've tried several times to find that email without success. I must have accidentally deleted it. Please write again. Thanks.

Message-ID: <008801c44590\$edec25a0\$36e83d40@q4p9b0>
From: "Orrin Bentz" <minmar@2z.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Book Wanted
Date: Sat, 29 May 2004 10:23:43 -0500

Hello

Does anyone have the MIT Rad. Lab. series book on COMPONENTS that they would wish to part with.

Thanks

Orrin Bentz minmar@2z.net

>

Message-ID: <40B8F419.1020401@ix.netcom.com>
Date: Sat, 29 May 2004 15:35:37 -0500
From: David Stinson <arc5@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Mounting Plate Available
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

If anyone knows what mounting plate MT-556A/AIC does and needs one, please contact me. First come first etc.
Dave S.

Message-Id: <200405300129.i4U1THmP004027@sco.theporch.com>
From: "Gary H. Harmon, Jr." <gharmon@idworld.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FPM-200 Transceiver
Date: Sat, 29 May 2004 20:26:31 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Looks like I may have a prototype FPM-200 Transceiver. Out of 3 manuals, none match this radio. Primarily, the schematic shows 2 OB2 regulators in the 6146 circuit. My radio has none. Additionally, the circuit boards, rear connector and other parts and pieces are different then a FPM-200 that matches the schematic. Does anyone have a manual/schematic that does not have the regulator circuit? Does anyone know who I might contact for FPM-200 engineering information?

Thanks in advance and 73, gary

=====//====

Gary H. Harmon, Jr. - K5JWK
6302 Robin Forest
San Antonio, TX 78239-3218
(210) 657-1549 home
(210) 884-6926 cell
(210) 203-7000 pager
gharmon@idworld.net

From: WA5CAB@cs.com
Message-ID: <d.29d1148e.2dec16bd@cs.com>
Date: Mon, 31 May 2004 01:03:57 EDT
Subject: RCH Manual Reprint Available.
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative; boundary="part1_d.29d1148e.2dec16bd_boundary"

--part1_d.29d1148e.2dec16bd_boundary
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Groups,

Thanks to another list member, I can now supply a reprint of the Instruction Book on the Scott Model RCH. \$20.00 plus shipping.

40 years ago, more or less, I had an RCH (and its manual). Then I went to Vietnam. When I came home the receiver and manual (along with a lot of other gear) had disappeared. So after 40 years, a hole in my manual reference collection is finally filled.

73
Robert Downs - Houston
<<http://www.wa5cab.com>> (Web Store)
<wa5cab@cs.com> (Primary email)
<wa5cab@houston.rr.com> (Backup email)

--part1_d.29d1148e.2dec16bd_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

* * * * *
* ---REMAINDER OF MESSAGE TRUNCATED--- *
* This post contains a forbidden message format *
* (such as an attached file, a v-card, HTML formatting) *
* Mail Lists at theporch.com only accept PLAIN TEXT *
* If your postings display this message your mail program *

* is not set to send PLAIN TEXT ONLY and needs adjusting *

--part1_d.29d1148e.2dec16bd_boundary--

Message-ID: <002801c44713\$86383dc0\$2be93d40@q4p9b0>
From: "Orrin Bentz" <minmar@2z.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Fw: CLASSIC RCVR. SURVEY RESULTS
Date: Mon, 31 May 2004 08:31:04 -0500

> > Hello Folks
> >
> > Here are the results of my unofficial, unscientific, adhoc, (your
> > favorites) "Classic Tube Receiver " survey. I received a total of
75
> > responses from the 3 'BA' reflectors. Some solid state stuff may
have
> > been included because I am not familiar with a lot of receivers.
Some
> > models are bunched together, a '/' will indicate those. If you want
a
> > further breakdown please email me.
> >
> > I did some editing of nominations. If the radio was clearly an
exotic
> > (to me), prototype, one of a kind, or if I couldn't find reference
> to it in Ostermans' book, old QST's, Ham Radio Magazine etc. it was
left
> > off the list. Some emails were long dissertations about specific
> rcvrs. and I couldn't always ascertain what the writer meant. If
your
> > nominations are not on this list that is probably what happened.
> >
> > NOTE if you feel that your nominations were unfairly or
inadvertantly
> > left off the list, email me and I will post an addendum.
> >
> > I hope everyone enjoys this as much as I did compiling the results.
> It certainly solidified in my mind what receivers to acquire.
> >
> > 75-A4 16
> > SP600 15
> > HRO 50 & 60 14
> > R390-A 13
> > R-388/51J-3 (J4) 13

```

> > SX28                      12
> > Drake 2B                  11
> > R390                      10
> > RCA AR-88                 9
> > 51S-1                    8
> > HQ180                    7
> > GPR-90                   7
> > R4B                      7
> > SP200 Series             7
> > NC 101X                  5
> > SX42                    5
> > NC-183 ABCD             4
> > HQ-170A                 4
> > BC-348                  4
> > SX-115                  4
> > NC-400                  4
> >
> > THE FOLLOWING RECEIVERS GOT 3 VOTES EACH
> >
> > Any Byron Goodman design ( now SK) from QST
> > HQ-129X, SX-88, SX-100, DR-1A, SP-400, 75-A1, ARC-5, RME-69, S-38
> >
> > THE FOLLOWING GOT 2 VOTES EACH
> >
> > Heath AR-2/3, NC-100, HRO-5TA1, NC RA0-7, SX-101A, SX-73, SX-71,
> > R1051-B, SP-310, HRO-5A1, Russian R-250/R-250M Series (R390 like)
> >
> > ONE VOTE EACH
> >
> > RCA CRM R6A, Eddystone (830, 358, 640), Marconi (CR-100, R-1155),
> > R-1052, Koln E-52, NC-303, NC SW-3, FT-1000D ??, SX-25, SX-117,
> > RME-6900, NC-54, 75-A3, 75-S3, R-391 (auto tune), R-4C, FRR-59, D
> > 2C-1,
> > NC-200, NC FRR-99, HQ-150, NC-300, NC S-54, S-76, Heath Mohawk, RME
> > 4300, SX-73
> >
> > My entry for 1 vote - Heath K1 3 tube regen. w/plugin coils, first
> > rcvr. kit Heath produced.
> >
> > Well, there you have it, enjoy.
> >
> > 73, Orrin Bentz      ex.  N9LKK, N0HYF  minmar@2z.net
> >
> > --
> > Entire content copyright Orrin H. Bentz, computer systems programmer.
> > You may reproduce this document for your own use. Any use on a web
> > site,
> > or in a for - profit entity requires my express permission.

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Attribution

> must be given to the author and to all who contributed (et al).

>

>

>

Message-ID: <03f601c44730\$bcb13970\$3201a8c0@w8ut>

From: "Al Parker" <anchor@ec.rr.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: E. H. Scott RCH or SLR-F?

Date: Mon, 31 May 2004 13:00:11 -0400

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Hi fellow boatanchorists,

I'm looking for some info on the subject item, I've done a google & found quite a bit, but still not sure which model it is, does anyone know the differences? Here's the rambling story of my find at the DurHamFest (NC):

Sat. I got an E. H. Scott either RCH or SLR-F, not sure which. The front panel tag was gone. In working condx, tho' very dirty. The seller said he had it fired up last Thurs. & no hum, sigs on all bands exc. just noise on VLF (with very little ant.). It's mil construction, very good, might not need much more than cleaning. Same freq.s as the BC-779/SP-210LX, VLF, no BC band, ~2-23mc. I hope to find out what the dif. is betw. RCH & SLR-F - they seem to be the same, but must be something dif. I've seen pix showing the front label in 2 dif places, but they've called both an RCH. They were used as "morale" rcvrs on shipboard in WW-2. Both models have the same freq. coverage & overall specs, from what I can find. I got the RCH manual from BAMA, but nil on the SLR-F manual yet. I've seen some differences in the IF can construction and the covers, in the pix I've seen. It does not have a cabinet, which apparently was another 40 lbs or so, well shielded for minimum radiation, as was the military worry back then.

I got it in from the van yesterday & did some cleanup on it, put a heater under it to dry it out well before I fire it up, it's probably been sitting a long time in the humidity around hr, and even tho' the seller said it "worked fine," he/we may have been lucky that he didn't leave it on long. It's certainly not a communications rcvr, but with it's wide IF should be a good broadcast listener, even with a single-ended output. Similar setup to the BC-779/SP-210LX - I had one that I re-did abt 2 yrs ago, then sold it 'cuz I found another nice one to work on.

I've been poring over the skem, it's a pretty basic design, with some measures to reduce radiation from the oscillator. No BBOD's, but all bypass & de-coupling caps are bathtubs, which could be more of a problem

if they're leaky and I want to go thru the "re-stuff" mode. I'll get some pix on a webpage in a few days.

Can anyone shed some more light on this neat old item?

tnx, 73,

Al, W8UT

New Bern, NC

BoatAnchors appreciated here

<http://www.thecompendium.net/radio/>

<http://www.hammarlund.info>

Message-ID: <014c01c44734\$e1ef89e0\$fd0212ac@3rdtech.com>

From: "Nick England" <nick@3rdtech.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: E. H. Scotttr RCH or SLR-F?

Date: Mon, 31 May 2004 13:29:52 -0400

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

After looking at another Morale Receiver in K4OZY's shack last night, I have a new theory about all that shielding. You have all heard the story about reducing emitted radiation so U-boats couldn't home in on it. - I am now convinced that the True Story involves a different U-boat-related purpose.

In truth, the massive "shielding" was there only so that when a destroyer dropped these things over the side they'd be heavy enough to plummet straight down and break through the pressure hull of a U-boat. - that's my theory and I'm sticking to it.

73 & Have Fun,

Nick KD4CPL

----- Original Message -----

From: "Al Parker" <anchor@ec.rr.com>

To: "Old Tube Radios" <boatanchors@theporch.com>

Sent: Monday, May 31, 2004 1:00 PM

Subject: E. H. Scotttr RCH or SLR-F?

..... It does not have a

> cabinet, which apparently was another 40 lbs or so, well shielded for
> minimum radiation, as was the military worry back then.

Message-ID: <003b01c44735\$d45d7570\$50e47443@KB6NAX>

From: "Arden Allen" <gumbear@pacbell.net>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: E. H. Scotttr RCH or SLR-F?

Date: Mon, 31 May 2004 10:36:31 -0700

MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

>In truth, the massive "shielding" was there only so that when a
destroyer
> dropped these things over the side they'd be heavy enough to plummet
straight
> down and break through the pressure hull of a U-boat.

No, you got it wrong, Nick. The reason they were called "morale" receivers
is because there's nothing more demoralizing than living on a rolling tin
can. When these receivers were installed in the crew's quarters the
destroyer and destroy escort centers of gravity were raised to the point
that rolling was substantially diminished.

Arden Allen
KB6NAX

Message-ID: <044601c44737\$c7e1bd90\$3201a8c0@w8ut>
From: "Al Parker" <anchor@ec.rr.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: E. H. Scott's RCH or SLR-F?
Date: Mon, 31 May 2004 13:50:36 -0400
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Arden,

Tnx for the quick note. Is your SLR-F visible enuf that you could
snap a digipic of the front panel? I'm thinking maybe at least one
difference is that that model has the tag on the left side of the panel &
a thumbscrew window for a freq. chart in the center, under the dial.
Maybe the RCH doesn't have the freq chart, and tag is there. Just my
guess.

I still hv withdrawal symptoms every 1st Sun. re: Livermore Swap
-) - after 6 yrs absence. I miss the Bay Area BoatAnchorists, but
there's a good bunch here, many of whom were at DurHamFest (missed Nick E.
tho').

73,

Al, W8UT

New Bern, NC

BoatAnchors appreciated here

<http://www.thecompendium.net/radio/>

<http://www.hammarlund.info>

----- Original Message -----

From: "Arden Allen" <gumbear@pacbell.net>

To: <anchor@ec.rr.com>

Sent: Monday, May 31, 2004 1:31 PM

Subject: Re: E. H. Scott's RCH or SLR-F?

> Hi Al;

>

> I'm interested in your story because I have an SLR-F, with nametag, but it's

> still in the pile and will be for the foreseeable future. I also have a

> "sudden death" AC-DC SLR-M. Even though they aren't communications grade I

> love the old monsters because they are so well built. Have fun...

>

> Arden

>

> ----- Original Message -----

> From: "Al Parker" <anchor@ec.rr.com>

> To: "Old Tube Radios" <boatanchors@theporch.com>

> Sent: Monday, May 31, 2004 10:00 AM

> Subject: E. H. Scott's RCH or SLR-F?

>

>

>

>

>

>

Message-ID: <40BBA1EE.82AE9EC7@erols.com>

Date: Mon, 31 May 2004 17:21:50 -0400

From: philip <dgnova@erols.com>

MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re BC-375

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

The BC-375 is perfectly stable. The person who wrote the conversion guide was an idiot.

Make no modifications to the transmitter.

Do get a copy of the instruction manual, and carry out the instructions exactly.

From: WA5CAB@cs.com
Message-ID: <8c.c4805ad.2ded1b71@cs.com>
Date: Mon, 31 May 2004 19:36:17 EDT
Subject: Re: Re BC-375
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative; boundary="part1_8c.c4805ad.2ded1b71_boundary"

--part1_8c.c4805ad.2ded1b71_boundary
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

The same idiot or group of idiots made similar remarks about the BC-640 VHF AM transmitter. Something about a single BC-640 being all it took to wipe out all TV reception in a large city. Once upon a time I had two of them up and running. I lived 30+ miles from the nearest TV station and properly tuned, they didn't cause either me or my neighbors any problem. Improperly tuned by someone who didn't know what they were doing (like the authors) and they could wipe out a small town, ruin the water supply, sour the milk, cause inflation, etc. :-)

I have a number of extra original manuals on the BC-375-E.

There was an AC operated rectifier power supply built for the 14 volt BC-191 (RA-34-A through -J) but aside from a couple of rumours, I never heard of one done for the BC-375. Unfortunately (for BC-375 owners), in the later (smaller and by comparison only lighter) models, the transformer winding that supplies the 12-14 VDC is in a transformer with all of the other windings. The RA-34-A through -D run the BC-191 tube filaments on AC and use tube type rectifiers to supply the 12-14 VDC for the relays and carbon mic. It would be fairly easy to replace the separate LV transformer and 866A rectifiers (actually the -A used two vacuum rectifiers that I haven't looked up) with a suitable transformer and silicon diodes. However, the early models are quite heavy. If you think nothing of moving BC-610's around, you'd love the RA-34-A, B, C or D. And the earliest model I've ever come across is an RA-34-G.

In a message dated 5/31/2004 4:25:00 PM Central Daylight Time, dgnova@erols.com writes:

> The BC-375 is perfectly stable. The person who wrote the conversion
> guide was an idiot.
>
> Make no modifications to the transmitter.
>

> Do get a copy of the instruction manual, and carry out the
> instructions exactly.

Robert & Susan Downs - Houston
<<http://www.wa5cab.com>> (Web Store)
<wa5cab@cs.com> (Primary email)
<wa5cab@houston.rr.com> (Backup email)

--part1_8c.c4805ad.2ded1b71_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
*      (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
*      If your postings display this message your mail program *
*      is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

--part1_8c.c4805ad.2ded1b71_boundary--

Message-ID: <001c01c44769\$4baa59d0\$99e47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Re BC-375
Date: Mon, 31 May 2004 16:44:58 -0700
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Bob;

> The same idiot or group of idiots made similar remarks about the BC-640
VHF
> AM transmitter.

Today's lot thinks like this: "Make adjustments only if all else fails."
Works great on computers!!

Arden Allen
KB6NAX

Mime-Version: 1.0
From: "k4pf@juno.com" <k4pf@juno.com>
Date: Tue, 1 Jun 2004 01:51:53 GMT
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: BC-375
Content-Type: text/plain
Message-Id: <20040531.185241.22945.167621@webmail14.lax.unttd.com>

The BC-375 has a bad reputation for simultaneous FM'ing as you modulate. It sounds good on a receiver with diode detector, but can't be copied on a product detector. WA1HLR had a BC-375 on 75 meters which he called his "SBE rig", meaning "sideband eliminator", because the guys with SSB transceivers couldn't copy his A.M.

I understand that with a stiff HV d.c. supply, such as that provided by the dynamotor originally used with this equipment, the FM'ing wasn't bad.

73,
Ed Knobloch

Date: Mon, 31 May 2004 21:46:41 -0500
From: Charles <charlesmorris@direcway.com>
Subject: Screen modulated BC-696 (ARC-5) transmitter
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <2fqnb05k57psb2064ni9ppbu4ra3bvj2l6@4ax.com>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7BIT

I have built a power supply and screen modulator for use with my Command Set transmitters. I need some tips adjusting it. Circuit is as follows: 480/120 volt 250VA control transformer "backwards" to a FW bridge, 50 uf capacitor filter delivering 580 volts with only VR and bleeder load. Center tap ("Economy" circuit) supplies the low voltages to the oscillator with 215 volts regulated (two 0B2) and 150 volts to the 1625 screens (regulated by one 0A2) through a small 2.5K:10K transformer driven by a class-A 6AQ5 amp.

My Heath wattmeter shows 30 watts forward (at max coupling with the loading coil at zero) into a 50 ohm dummy load at 1.5:1 VSWR, although I don't know how accurate it is. The 6" long "noninductive" resistor does get good and hot on extended key-down. Modulation, though, is limited because it flat-tops (actually more like "round-tops", it's not a square "clip") long before the valleys are anywhere near zero. Power meter drops to

about 25 watts under modulation. Don't know yet if the B+ is sagging or the modulation is the problem, yet. It also doesn't sound good on the ARC-5 receiver; I wouldn't put it on the air.

I think the problem is that even the 150 volts is too high on the screens (which also goes with the higher carrier output, I was expecting about 20 watts). Does anyone know what screen voltage I should be running? The next lower regulated step is 108 which sounds very low. How many p-p volts I should see across the modulation transformer secondary (i.e. what should be the screen voltage at full PEP output)? I think the 6AQ5 should be capable of supplying sufficient power (~ 3 watts) to screen modulate fully at these power levels.

thanks
Charles
WB3JOK

ps would the person who was going to send me four dynamotor shockmounts for the ARC-5 receiver please contact me?

Message-ID: <009401c44789\$3d25de00\$c85b45cf@default>
From: "David L. Thompson" <thompson@mindspring.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: SX-100 update
Date: Mon, 31 May 2004 23:33:41 -0400

Been out of town for a few days. Thanks for all the replies.

I have the antennas (all unbalanced) to ant 1 and 2 through a balun. The two terminals are set for 300 ohm balanced. This seems to work much better than hooking the coax center to to ant 1 and jusing a jumper between ant 2 and ground. The coax shield can then be hooked to either ant 2 or ground. If you use a coax connector installed in the knock out slot on the chassis rear you need a balun inside to better match to the 300 ohm input.

As to the S meter, yes it does read backward so when the receiver is off its all the way to the right. I got some good ideas as how to check it out and will get to those (carefully as it reads RF voltage) tomorrow. So far the only test I have used is to switch the toggle switch between receive and transmit and the meter jumps backward slightly. The leads to the meter look good but that too will be checked.

As to the actual model, the reference material says the original SX-100 used a second IF at 50 kcs. The Mark I A switched to 50.5 kcs and the Mark II changed that to 50.75 kcs. The IF transformer in my SX-100 is 50.5. I am still looking for the serial number and if anyone has additional differences

in model types I would like to hear it.

I did use the 100 kcs calibrator and on most bands it's not very loud. I have to switch to the dummy load to be able to hear it. I have an outboard calibrator that puts out a fairly loud signal on each band. So I will look into why the output is so weak. I have an old HQ-120 with built-in calibrator that had the same problem and I found the lead from the calibrator tube to the antenna circuit had a cold solder joint. The signal pins the S meter on 80 now and is S9 on 10.

Oh I forgot, yes I do set the band spread to full right end of scale to then look at the main dial. As I said before once I find the place where to put the main dial (7500 kcs on 40) the band spread lines up very well on 40 and 20. I don't have a Signal Generator that goes below 100 kcs right now so except for getting the main dial to line up I won't be able to do a full alignment. A friend has a function generator that puts out a signal anywhere from nearly zero to 100 mcs (as I remember) both modulated and unmodulated. I used that for a HQ 170 but he has a NC-300 that he is working on right now so I have to wait until he finishes.

73 Dave K4JRB

From: W7QH0@aol.com
Message-ID: <9a.be9d036.2ded5d0c@aol.com>
Date: Tue, 1 Jun 2004 00:16:12 EDT
Subject: Re: Screen modulated BC-696 (ARC-5) transmitter
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative; boundary="part1_9a.be9d036.2ded5d0c_boundary"

--part1_9a.be9d036.2ded5d0c_boundary
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Charles,

The "easiest" way to set up and adjust a screen modulated xmitter is as follows:

1. Start off with rated screen voltage on the PA. In the case of the 1625s in the BC-696 this would be 250 volts.
2. Load the PA to the rated CW value. With a pair of 1625s this would nominally be 200ma which may not be possible with the 696 because the grid drive from the oscillator is only about enough for a single tube. I usually settle

for about 150-175 ma with command sets.

3. Now, without changing the PA tuning or loading adjustments reduce the screen voltage to a point where the carrier level is reduced by half, apply modulation and check with a scope. If flat-topping on positive peaks is noted the screen voltage may have to be reduced further.

This is not the way the Army did it. Starting with a fixed 150 volts on the screen the procedure was, essentially, to load the PA as heavily as possible and hope for the best. A scope would be helpful, of course.

A single 6AQ5 might be a little light for the modulator. The Army used another 1625.

To feed a 50 ohm load will require a 300 - 400 pf cap in series with the output. Start with the Ant. Coupling control at about 30% and cut in inductance until peak loading is achieved, reducing or increasing the coupling along the way as required.

Good luck.

Dennis D. W7QHO
Glendale, CA

--part1_9a.be9d036.2ded5d0c_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

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* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
* (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

--part1_9a.be9d036.2ded5d0c_boundary--

Message-ID: <000601c44783\$d9a0d2e0\$b5f4fea9@g5p3m4>
From: "Ed Zeranski" <ezeran@concentric.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Re BC-375
Date: Mon, 31 May 2004 19:55:05 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

>The BC-375 is perfectly stable. The person who wrote the conversion
>guide was an idiot.
>
>Make no modifications to the transmitter.
>
>Do get a copy of the instruction manual, and carry out the
>instructions exactly.

Back at the first, at was to become, West Coast Military Radio Group
Collector's Group ...Brother David Stinson dragged in a (I think
borrowed)BC-375E with a pwr supply and explained the neutralization and what
made the 375 tick. David is on other mail lists also but is the guy to ask
on this old set....also Dennis W7QH0.

From: WA5CAB@cs.com
Message-ID: <15d.367b156a.2ded6729@cs.com>
Date: Tue, 1 Jun 2004 00:59:21 EDT
Subject: Re: Screen modulated BC-696 (ARC-5) transmitter
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="part1_15d.367b156a.2ded6729_boundary"

--part1_15d.367b156a.2ded6729_boundary
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Charles,

The modulated screen supply to the 1625's in the SCR-274N and ATA
transmitters is 150 volts regulated by a single VR-150 (0D3). Clearly shown in
the
manuals. See the wiring diagrams of the BC-456. The expected load from the short
wire antennas used is not near 50 ohms. Try something in the 10 ohm range.
And reduce the loading. The rated output of the SCR-274N transmitters on CW
was up to 40 watts with an antenna resistance of 12 ohms and a reactance between
50 uufd and 4.5 uHy. But on voice it was around 1/3 of that. Or less. The
manual mentions operation down to 1 ohm effective radiation resistance.

The Heath wattmeter was built for use with consumer grade gear. Rice boxes,
matched loads, balanced press coverage, and all the other niceties that the US
military never gets. Which is particularly aggravating considering what day

it is.

In a message dated 5/31/2004 9:47:41 PM Central Daylight Time,
charlesmorris@direcway.com writes:

> I think the problem is that even the 150 volts is too high on the
> screens (which also goes with the higher carrier output, I was
> expecting about 20 watts). Does anyone know what screen voltage I
> should be running? The next lower regulated step is 108 which
> sounds very low. How many p-p volts I should see across the
> modulation transformer secondary (i.e. what should be the screen
> voltage at full PEP output)? I think the 6AQ5 should be capable of
> supplying sufficient power (~ 3 watts) to screen modulate fully at
> these power levels.

Robert & Susan Downs - Houston
<<http://www.wa5cab.com>> (Web Store)
<wa5cab@cs.com> (Primary email)
<wa5cab@houston.rr.com> (Backup email)

--part1_15d.367b156a.2ded6729_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
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* * * * *
```

--part1_15d.367b156a.2ded6729_boundary--

End of BOATANCHORS Digest 3654
